HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT:

ALTERNATIVES ANALYSIS (AA) REPORT – **Draft Final** Report to Transit Task Force

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Review highlights

The trip generation for areas 11 (Honouliuli and Ewa Beach) and 12 (Kapolei, Ko'Olina and Kalaeloa) will change from 298,000 trips in 2005 to 704,000 trips in 2030, a growth of well over 100% in 25 years. These estimates are highly improbable. If only half as much growth occurs, which is still an optimistic position, then areas 11 and 12 will produce 352,000 trips less. All Rail options predict a total of about 294,000 combined bus and rail trips. Thus, ***without inflated forecasts, the Rail option is unsupportable***. [Source: AA Page 3-2: Table 3-1]

Year 2030 Transit trips in the "No Build" alternative equal 232,100. Year 2030 Transit trips with the best Rail alternative equal 294,100. So the net gain in transit ridership after developing a multibillion rail system is 62,000 trips by transit. Year 2030 vehicle trips are estimated at about 3,000,000 which represent many more person trips. Thus, ***the 62,000 transit trips "removed from the road" are actually less than 2% of the daily trips on Oahu: Rail will have a truly tiny contribution***. [Source: AA Page 3-4: Table 3-3 in combination with Table 3-7]

Travel by auto is estimated to be equal, faster or much faster than rail for all trips between Aiea (Pearlridge) and Downtown, Downtown and Ala Moana Center, Downtown and Manoa, Airport and Waikiki. In other words, ***for the entire area between Aiea and Waikiki or Manoa, all Rail alternatives are predicted to provide the same or longer trip times than auto!*** Note that trip times by auto reflect conditions with 2030 traffic congestion without rail. [Source: AA Page 3-11: Table 3-11]

Conveniently for Rail, the AA presents "vehicle hours traveled" and those who travel on Rail simply disappear from the travel time calculations as if they travel at warp speed. Far from it. My 2030 estimates for what really counts, which is person hours of travel, are:

No Build Person Hours = 246,875 20-mile Rail Person Hours = 274,571

Thus, ***the hours spent traveling on Oahu with a 20-mile Rail line will be 11% more than the No Build. All Rail options are worse than the No Build***. [Source: AA Page 3-20]

The AA says that "The H-1 zipper lane would be discontinued in the Reversible Option" of the Managed Lanes (ML). This simply means that they provided two new freeway lanes and then subtracted one freeway lane. The net effect is that in both ML versions examined, ***the ML alternative was modeled as only one new freeway lane***. Despite what appears to be a deliberate effort to undermine the ML alternative, this single 14-mile lane addition actually competes well with a multibillion dollar 20 or 28 mile rail system! ***In essence, the Rail system which was recommended as the Locally Preferred Alternative is equivalent to one (1) new freeway lane.*** [Source: AA Page 2-4]

Part I: OVERALL AA ASSESSMENT AND WORTHINESS OF LPA

The AA report is unacceptable as a basis for choosing the Locally Preferred Alternative (LPA) because at least two of the four alternatives are fatally flawed. The recommended LPA is inconsistent with plain logic and common sense.

- The Managed Lane Alternative was manipulated in such a way so that the net effect is to add a single freeway lane during the morning peak hour. The modeling of this alternative is defective in other ways which are detailed below.

- The "No Build" alternative is based on unrealistic forecasts for public transit ridership. As explained later herein, the base error in ridership is in the order of 21%. If this proportion of trips is subtracted, then the rail ridership estimates diminish.

- A rail system exclusively depends on foreign technology and over $1 billion of the installation budget will be spent abroad. What is the public's acceptance of this? Why is it assumed that it is a non-issue? There's no mention of it in the AA.

The AA's recommended LPA for rail transit is unsupportable using basic logic:

- ✓ There is no urban area in the US with even twice Honolulu's population that has a heavy (rapid) rail system, as proposed in the AA.
- ✓ There is no urban area in the US except for two old cities New York City and Chicago where rail transit serves more than 10% of urban trips.
- ✓ The national average of rail usage in the 50 largest metro areas in the U.S was 2% in 2000.
- ✓ Even if Honolulu's proposed heavy rail attains a fantastic 10% share of the trips, then for every 10,000 new trips generated in the Ewa plains, 1,000 will be by rail and 9,000 by other modes. Traffic congestion will be terrible, or the planned development will not occur, or people will relocate. The economy will suffer.
- ✓ Compared to fast growing cities like Atlanta, Las Vegas and Phoenix, Honolulu's population growth was tiny—under 5% between 1990 and 2000.
- ✓ Phoenix, Arizona with a population that is four times larger than Honolulu's is developing a light rail system with a cost that is less than one quarter the cost of Honolulu's proposed 28 mile heavy rail system. The AA's recommendation is entirely out of proportion.
- ✓ Honolulu has by far the second lowest rate of solo-occupant vehicle use and among the highest bus use in the U.S. Rail transit does not foster these good habits of carpooling and bus usage. It competes with them.
- ✓ Despite a strong pro-rail campaign by the City and a strong pro-rail bias by most of the media, three separate polls show that, only 45% of the poll respondents support rail transit.

- In addition, I am concerned with the Draft ORTP's suspect objectives promoting transit, and its erroneous statements like "we cannot build ourselves out of congestion" which show an inability to develop and engineer real solutions to transportation congestion. The ORTP was not approved by the OMPO Policy Committee at the time the AA was prepared. Although the movement of goods and emergency conditions are of critical priority for Oahu and are part of the ORTP, the AA fully ignored both of these.

Part II: DETAILED LIST OF THE AA'S FLAWS AND SHORTCOMINGS

Throughout this report, the ♦symbol signifies evidence that the "**Managed Lanes**" alternative was engineered to fail in the comparisons among alternatives.

→ Page S-2: "**Motorists experience substantial traffic congestion…**" A quantification of congestion for major origin-destination pairs is required. How does Honolulu's congestion compare to other cities? What are appropriate measures of congestion? These need to be defined and used. What is the per capita, and per vehicle roadway supply in Honolulu (lanes and lane-miles per 1,000 residents)? How do these compare to other metro areas? Data from the State's Congestion Management System need to be cited and tabulated. This information should be expected from this study.

→ Page 1-1: The statements of purpose

- "**improved mobility**"
- "**provide faster, more reliable public transportation services**"
- "**provide an alternative to private automobile travel**"

make it clear that this is a public transit analysis – not a representative analysis of passenger and freight transportation issues and traffic congestion on the subject corridor . The answers from this defective scope can only be some form of mass transit.

This alternative analysis is ill founded and is non-responsive to the traveling and taxpaying public's requirements and expectations of developing projects and actions to reduce traffic congestion on Oahu.

→ Page 1-1: Bottom: "**Current a.m. peak period times for motorists from West Oahu to Downtown average between 45 and 81 minutes. By 2030, after including all of the planned roadway improvements in the ORTP, this travel time is projected to increase to between 53 and 83 minutes**."

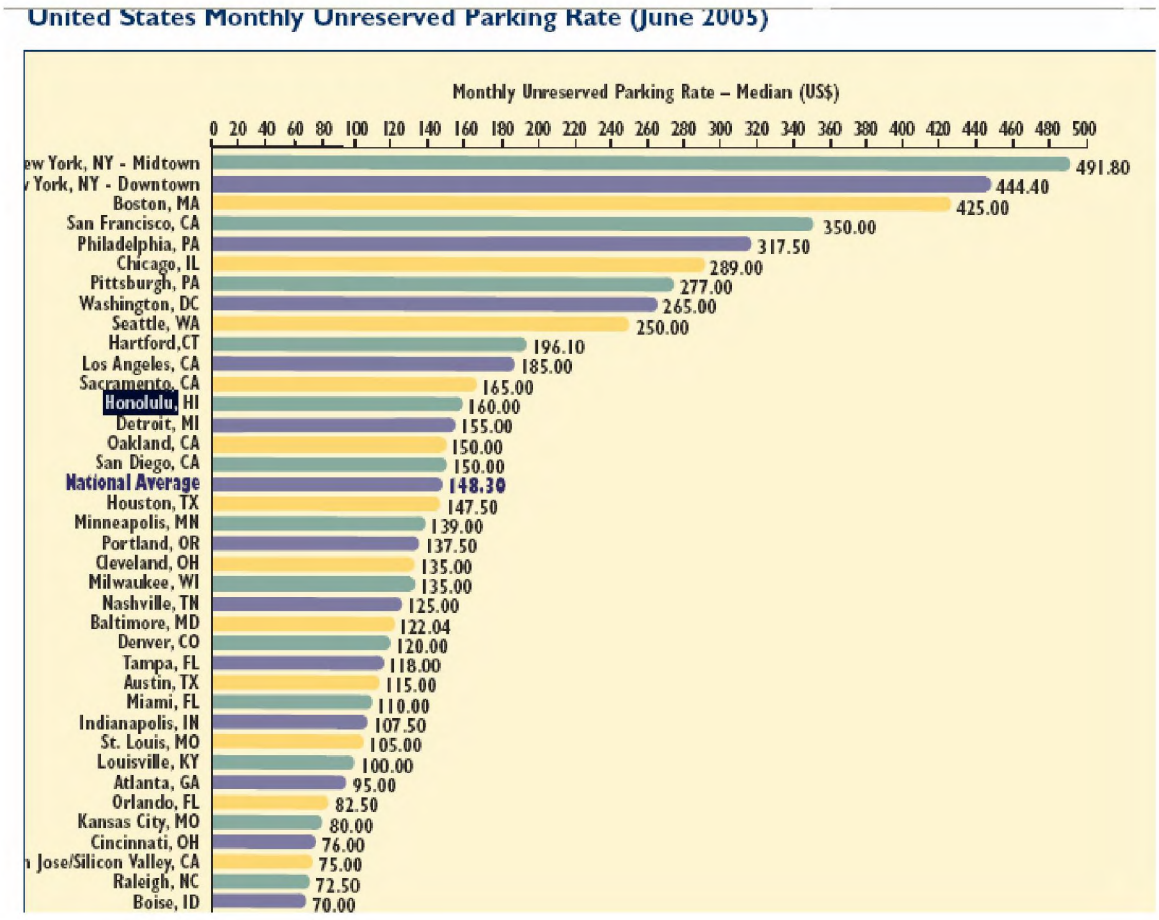
From this description, travel time size (1) can be stabilized for 25 years into the future and, (2) based on national experience, it does not appear to be severe enough to justify an extra four to eight billion dollar project, in addition to the base fixings in the ORTP.

→ Page 1-9: The UH-Manoa campus is not identified as a major public transit destination. Why is rail service to the UHM being considered? Is it not the expectation that UH-West Oahu will accommodate most of the Leeward Oahu UH students?

→ ♦ Page 1-12: A $10 million study should have included substantial details on parking supply, pricing and potential for more supply in all major destinations. None of this was done and presented. Instead, there is this wrong statement "**Daily parking rates are the third highest in the US behind New York and Boston**." A copy of the 2005 Colliers report cited in the AA shows that Honolulu is nowhere near the top three. The 2005 national monthly parking average is $148.30 and Honolulu's average is $160, a tiny difference considering Honolulu's other cost of living adjustments. It should be noted that all these are for "unreserved" stalls, whereas the supermajority of both public and private workers receive reserved and/or discounted stalls.

This appears to be an attempt to develop the impression that parking supply and pricing in central Honolulu are major problems without a solution; therefore the Managed Lanes

alternative that facilitates vehicular traffic is bound to fail because motorists will find no parking, or will have to pay dearly for it.



Page 1-13, Table 1-11 numbers are highly questionable. Saturated street segments such as the "Liliha Street" segment on the freeway cannot get much worse, e.g., the estimated average speed drop from 19 to 12 mph is unlikely. The consultant's planning model does not seem to be able to model saturated traffic conditions correctly.

→ ♦ Page 2-3: Bus estimates for HOT lanes are nonsensical and in contrast with national experience. Buses run 10 miles in approximately 10 minutes on HOT lanes. As a result of improved bus efficiency, either fleet size is reduced, or a given fleet size can provide a much higher frequency. The analysis is erroneous or suspect.

→ ♦ Page 2-4: "**The H-1 zipper lane would be discontinued in the Reversible Option**" of the Managed Lanes. This simply means that they provided two new freeway lanes and subtracted one freeway lane. The net effect is that in both versions examined in the AA, the Managed Lane alternative was modeled as only one new freeway lane. Despite what appears to be a deliberate effort to undermine the ML alternative, this single 14-mile lane addition actually competes well with a multibillion dollar 20 or 28 mile rail system! ***In essence, this means that the Rail system which was recommended as the LPA is equivalent to one new freeway lane.***

→ Page 2-16: This summary of costs makes it obvious that replacement costs have been accounted for buses in all alternatives, but no replacement costs for the rolling stock and the multitude of deteriorating pieces of equipment (switches, generators, signals, computer controls, extensive wiring and power system, etc.) of the Rail option has been included. This is again repeated in pages 3-9 and 3-10. Rail's long term costs have been ignored.

→ Page 3-2: Table 3-1: The entire project depends heavily on the projected growth of two out of 25 Traffic Analysis Areas on Oahu. If this growth is reduced, then the project implodes. Specifically:

Area 11 is Honouiliuli and Ewa Beach	2005 total daily trips are **176,000**
	2030 total daily trips forecast at **342,000**
Area 12 is Kapolei, Ko'Olina, Kalaeloa	2005 total daily trips are **122,000**
	2030 total daily trips forecast at **362,000**

Trip generation for these two areas will change from 298,000 trips in 2005 to 704,000 trips in 2030, a growth of well over 100% in 25 years. These estimates are highly improbable, given Oahu's practically zero growth in tourism, continued reduction in agriculture, stability in military operations and, predictably worsening economic times ahead as (i) baby boomers retire and draw a pension instead of producing work, and (ii) Hawaii's Congressional Delegation loses substantial strength in the 2005 to 2030 period.

If only half as much growth materializes (still an optimistic position), then areas 11 and 12 will produce 352,000 trips less. Table 3-3 estimates that all Rail options serve roughly 294,000 transit trips. Thus, without inflated forecasts, the Rail option is unsupportable.

→ Page 3-4: Table 3-3 in combination with Table 3-7 prove the uselessness of Rail even if one uses the AA's inflated Rail and Transit ridership numbers.

- Year 2030 Transit trips in the "No Build" alternative equal 232,100.
- Year 2030 Transit trips with the best Rail alternative equal 294,100.
- So the gain after developing a multibillion rail system is 62,000 transit trips.
- Year 2030 Vehicle trips are estimated at about 3,000,000 (at a 1.6 average occupancy including buses, this estimate represents 4,800,000 person trips).
- The 62,000 transit trips reflect 2.07% of the daily trips on Oahu or barely above 1% of person trips. This is a truly negligible contribution.

Baseline transit projections have been historically overstated to the tune of at least 21%, as the tabulated analysis below indicates. Observe that the number of trips in Table 3-3 for the No Build is 232,100, and that the number of trips in the best rail option is 294,100. If the Rail's number is too big by 21% (equal to the forecasting bias), then 294,100 becomes 232,339 which is equal to the number of transit trips in the No Build. Therefore, there is no basis for choosing Rail because all its gain in ridership is equal to the forecasting bias.

In other words, ***the forecast ridership bias is all that Rails has going for it.***

Millions of transit trips per year					
1990	75.6				
1991	72.8				
1992	73.0	← Actual			
1993	75.6				
1994	77.3			Difference	% Error
1995	72.7				
1996	68.9	Projections			
1997	68.6				
1998	71.8				
1999	66.2				
2000	66.6				
2001	70.4	73.0	HART		
2002	73.5	67.0	Hali2000		
2003	69.1	88.0	Rail1992		
2004	61.3	104.0	BRT2001		
2005	67.4	96.0	Rail2006		
Mean	**70.7**	**85.6**		**14.9**	**21.1%**
Std. Dev.	**4.2**	**15.5**			

→ ♦ Pages 3-7, 3-8: The TSM alternative is estimated to have a 6,200 parking stall requirement for park-and-ride, the Managed Lane alternative the same, but the 20-mile rail option was estimated with 5,700 stalls. Is this a manipulated "cost discount"? A smaller parking requirement for rail compared to TSM and ML does not make sense. In the Rail alternative people cannot drive and they have to park their vehicle. In the TSM and ML alternatives people still have the option to drive.

→ Page 3-11: Table 3-11 includes travel time estimates for year 2030 with Rail. Basically travel by auto is <u>equal</u>, <u>faster</u> or <u>much faster</u> than rail for all trips between:

- Aiea (Pearlridge) and Downtown
- Downtown and Ala Moana Center
- Downtown and Manoa
- Airport and Waikiki

For the entire area between Aiea and Waikiki or Manoa, <u>all</u> Rail alternatives will provide the same or longer trip time as auto! The travel times by auto reflect 2030 traffic congestion conditions without rail.

→ ♦ Page 3-13: These excerpts from the performance assessment of the Managed Lane as modeled are appropriate but they also explain how ML was engineered to fail:

- **"While bus speeds on the managed lanes are projected to be relatively high, the H-1 freeway leading up to the managed lanes is projected to become more congested when compared with the other alternatives, because cars accessing the managed lanes would increase traffic volumes in those areas."**
- **"Additionally, significant congestion is anticipated to occur where the managed lanes connect to Nimitz Highway at Pacific Street near Downtown."**

Unlike the proper engineering of the Tampa reversible expressway which has six on-ramp/off-ramps at the Tampa end of it, and a similar number of ramps at the Brandon end of it, the ML expressway in this analysis was engineered to fail by

(1) using an already congested freeway itself to feed the ML with traffic, and
(2) by essentially terminating a two lane expressway at a traffic signal (stoplight).

With this type of "engineering," then the AA's conclusion would come true:

- **"Hence, much of the time saved on the managed lane itself would be negated by the time spent in congestion leading up to the managed lane as well as exiting the lanes at their Downtown terminus."**

Any further statistics of the Managed Lanes are not representative of what a new 2-lane freeway can do for this corridor.

→ ♦ Page 3-20: In reality the numbers in Table 3-10 tell a different story than the one presented. Conveniently for Rail, the AA presents "vehicle hours traveled" and those who travel on Rail simply disappear from the travel time calculations as if they travel at warp speed. Far from it.

Let me take the "No Build" and 20-mile Rail estimates of the AA to demonstrate the truth in the amount of time spent for transportation using the only statistic that really matters: Person-hours.

The No Build vehicle hours estimate is 395,000 and assuming an average vehicle occupancy of 1.6 people per vehicle (includes buses), then the 2030 estimate is:

No Build Person Hours = 395,000/1.6 = ***246,875***

The 20-mile Rail vehicle hours estimate is 376,000 with the same average vehicle occupancy as the No Build. In addition, the 94,970 passengers in Table 3-9 are assumed to travel about half of the available rail line distance, that is, 10 miles on the average, and at the heavy rail average speed of 24 miles per hour. Their person hours of travel are, 94,970 * (10/24) = 39,571. Then the 2030 estimate is:

20-mile Rail Person Hours = 376,000/1.6 + 39,571 = ***274,571***

Thus, the hours spent traveling on Oahu with a 20-mile Rail line will be 11% longer than the No Build. ***All Rail options will be worse than the No Build.***

→ ♦ Page 3-25. The estimates for the Managed Lane alternative are based on one net new lane in the peak direction. However, if ML is modeled properly, then it produces much lower year 2030 congestion levels than the best Rail alternative.

In addition, the AA either assumes that the utilization of a freeway lane has to be about 1,400 vehicles per hour in order for it to operate at a good level of service, or the ML was modeled with so much entry congestion so only 1,400 vehicles per hour per lane could enter. Either of these two is erroneous. Appendix 1 shows that a sample three-lane section of SR-91 operates at free flow with a volume of more than 1,900 vehicles per hour per lane.

A third reason for the low utilization of the Manages Lanes is that they used an excessively expensive toll charge to limit the entries. A figure of $6.40 was mentioned at the 21/1/06 meeting Transit Task Force; this is excessive by California standards were the demand is at least four times higher than demand on Oahu (current or future.)

The table below summarizes my traffic analysis.[1]

[1] Appendix 2 of this report is a detailed spreadsheet that explains my estimates and conclusions.

In short, the result is that ***in 2030 and with a properly designed 3-lane Managed Lane expressway, traffic congestion on the H-1 freeway will be almost the same as in 2003*** while still using the AA's growth forecasts. Congestion on H-1 freeway will be incomparably worse with any of the Rail options.

Volume to Capacity (V/c) Estimates at Aiea Screen-line*

This set of estimates assumes that vehicular volume for ML is the same as the No Build. This is very conservative because in reality express buses will go from Waikele to Iwilei in 15 minutes.

	2003 Existing	2030 No Build	2030 ML wrong 2 lanes	2030 ML correct 2 lanes	2030 ML correct 3 lanes	2030 Rail (20)
H-1 Fwy	1.15	1.90	1.94	**1.76**	**1.50**	1.81
H-1 Fwy (HOV)	0.84	1.59	1.46	**0.96**	**0.96**	1.44
H-1 Fwy (Zipper)	0.89	1.29	NA	**0.85**	**0.85**	1.18
Moanalua Rd	0.97	0.60	0.57	0.57	0.57	**0.50**
Kamehameha Hwy	0.86	1.01	0.90	**0.90**	**0.90**	**0.89**
Managed Lane	NA	NA	0.79	**0.86**	**0.86**	NA

This set of estimates assumes that express buses will carry the same amount of passengers as the relatively slow and short 20 mile rail option. This is still conservative.

	2003 Existing	2030 No Build	2030 ML wrong 2 lanes	2030 ML correct 2 lanes	2030 ML correct 3 lanes	2030 Rail (20)
H-1 Fwy	1.15	1.90	1.94	**1.55**	**1.29**	1.81
H-1 Fwy (HOV)	0.84	1.59	1.46	**0.96**	**0.96**	1.44
H-1 Fwy (Zipper)	0.89	1.29	NA	**0.85**	**0.85**	1.18
Moanalua Rd	0.97	0.60	0.57	0.57	0.57	**0.50**
Kamehameha Hwy	0.86	1.01	0.90	**0.90**	**0.90**	**0.89**
Managed Lane	NA	NA	0.79	**0.86**	**0.86**	NA

Highlighted cells show best 2030 V/c ratio -- lower ratio means less congestion

ML provides the most traffic relief for the AA's highly optimistic 2030 growth rates

With a 3-lane ML and good express buses, congestion in 2030 will be similar to 2003!

Light blue columns contain data exactly as they appear in City's AA

Engineered to fail: City's consultand added a 2-lane ML and deleted the AM zipper, for a net addition of a single lane! (See their Table 3-12.) This is shown above as "ML wrong". "ML correct" has the zipper lane restored.

(*) Kalauao Stream Koko Head bound

→ Page 3-27: "**The travel demand forecasting model has been reviewed and updated for use on the project**." Important words, but no facts or evidence to support the contention that the model is even basically adequate. To state the obvious, Oahu has no rail service, so the existing OMPO model (done with survey data which are over one decade old) naturally has no local parameters for any type of rail service. What parameters were introduced for rail?

Why is the model representative of today's conditions? Since the OMPO model was developed, *TheBus* share has declined in the last 10+ years, fuel costs went up in the last 10+ years, Kapolei employment was non-existent 10+ years ago, the "bust" real estate market of the early 1990s is "booming" now, the H-3 freeway did not exist 10+ years ago, safety and security issues in metro rail systems (Tokyo, London, Madrid) did not exist, and last but not least, a huge portion of Oahu's population, the baby boomers, will be retiring entirely throughout the project's planning horizon, 2005-2030, and there are strong indications of significantly different travel behavior by them.

All these trends affect the setting of parameters and alternative-specific constants in the model. Given all these concerns, how can a fundamentally old mode choice model with "imported" parameters give any reasonable predictions for year 2030? The model should be provided for review and its parameters should be justified.

→ Page 3-28: "**External factors, such as a downturn in the economy, could affect whether the island will develop as planned.**" The AA's forecast is truly a best case scenario which is an unrealistic basis for multibillion dollar civil infrastructure development. Here is a partial list of reasons why even a modestly vigorous growth is unlikely in Oahu's future:

- practically zero growth in tourism
- a sustained energy crisis will cause high airfares and a reduction in tourist arrivals
- the probability for avian flu, SARS or similar is far from zero, further threatening tourism
- the Waikiki tourism plant is old, crowded and revitalization is slow
- continued reduction in agriculture
- stability in military operations and post-Iraq military downsizing to repay the war debt
- baby boomers retiring in large numbers
- substantial loss of seniority in Hawaii's Congressional Delegation will cause a dramatic decrease in earmarked projects and funds for Hawaii

Any of these can cause a substantial reduction in development or expansion which makes rail a useless alternative compared even to the simple TSM alternative.

→ Page 3-30, Table 3-14: The "substantial benefits" of the Rail alternative are substantiated with percentages based on relatively tiny numbers. In pure numbers, the effect of rail is miniscule, as the comments above have shown. Based on the AA's estimates, ***Rail will make long trips longer and will worsen the overall levels of traffic congestion.***

→ Page 4-1: Rail has the highest environment-al impact and displacements. Also rail is not environmentally benign once it's built and put to use. The estimates shown include the heavily utilized systems in New York City and Chicago. Honolulu's rail BTUs will be at least twice as high as those shown in the table.

Mode	BTU per passenger mile
Automobiles	3,593
Rail Transit	3,687
Transit Buses	4,374

Source: US Department of Energy. *Transportation Energy Data Book*. 15th Edition, Table 2.15, p.2-25.

→ Page 6-2: Table 6-1. For the readers' benefit, at present, the sole criterion of the Federal Transit Administration for moving an alternative forward is that the cost effectiveness factor is lower than $25. Therefore, consultants are forced by FTA and the sponsor (City and County of Honolulu) to manipulate the estimates of the alternatives in a way that enables the "preferred alternative" to have a cost-effectiveness factor under $25. Obviously Rail "achieves" this in the AA, but notably the TSM has a far superior factor. Also, a true 3-lane reversible Managed Lane alternative would have a factor far better than the TSM and, of course, any Rail option.

→ ♦ Page 6-8: "**In general, the managed lane structure is wider, requiring larger foundations, and would disturb more traffic lanes during construction.**" This is largely not true. A lot depends on the construction technique used. The ML alternative can be easily built with a single row of pillars because of its light live load (the vehicles), whereas wider or twin pillars may be needed for rail due to its concentrated and very high live load (the train.)

Part III: ISSUES OF PROCESS AND PROCEDURE

The City has posted on its website the process that it was to follow. However, it appears that it's picking and choosing which steps to follow and to which extent. The process that the City has followed is not compliant with the corresponding FTA Notice of Intent (NOI) for Honolulu's project:

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[Federal Register: December 7, 2005 (Volume 70, Number 234)] [Notices] [Page
72871-72873] From the Federal Register Online via GPO Access
[wais.access.gpo.gov] [DOCID:fr07de05-137]
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DEPARTMENT OF TRANSPORTATION
Federal Transit Administration
Preparation of an Environmental Impact Statement for High- Capacity Transit
Improvements in the Southern Corridor of Honolulu, HI
AGENCY: Federal Transit Administration, DOT.
ACTION: Notice of intent to prepare an Environmental Impact Statement (EIS).
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SUMMARY: The Federal Transit Administration (FTA) and the City and County of
Honolulu, Department of Transportation Services (DTS) intend to prepare an
EIS (and Alternative Analysis (AA)) on a proposal by the City and County of
Honolulu to implement transit improvements that potentially include high-
capacity transit service in a 25-mile travel corridor between Kapolei and the
University of Hawaii at Manoa and Waikiki. Alternatives proposed to be
considered in the AA and draft EIS include No Build, Transportation System
Management, Managed Lanes, and Fixed Guideway Transit. Other transit
alternatives may be identified during the scoping process.
The EIS will be prepared to satisfy the requirements of the National
Environmental Policy of 1969 (NEPA) and its implementing regulations. The FTA
and DTS request public and interagency input on the purpose and needs to be
addressed by the project, the alternatives to be considered, and the scope of
the EIS for the corridor, including the alternatives and the environmental
and community impacts to be evaluated.
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The project is supposed to be NEPA compliant and the Environmental Impact Statement is a stated priority and obligation, but no EIS is available.

Later on the NOI mentions:

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SUPPLEMENTARY INFORMATION:
I. Scoping
The FTA and DTS invite all interested individuals and organizations, and
Federal, State, and local agencies, to comment on the purpose and need,
project alternatives, and scope of the EIS.
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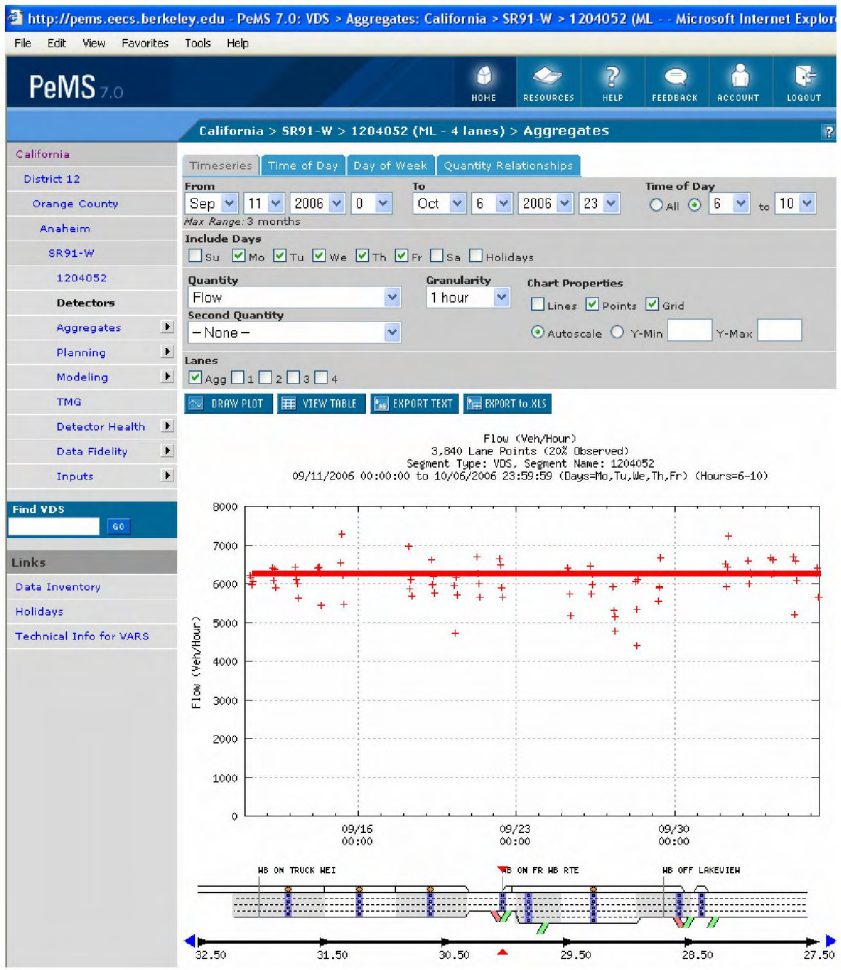
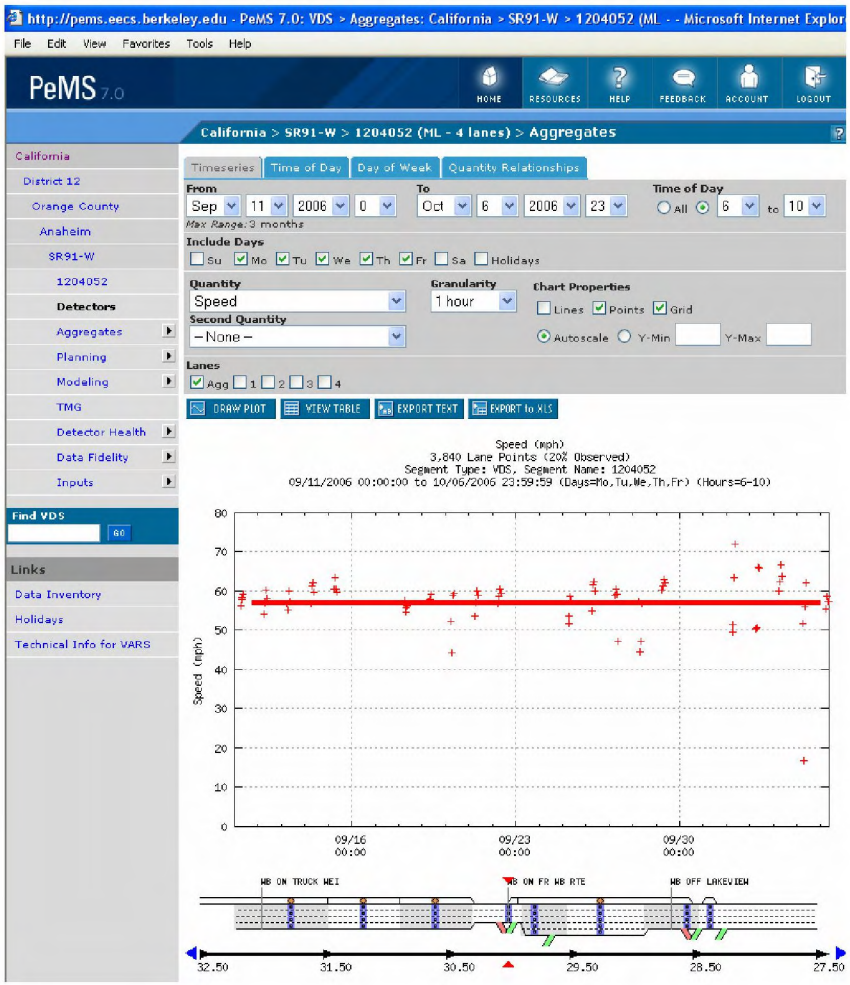
There has been no EIS scoping and the publics and private sector required involvement has not occurred. Poster shows of rail alignments do not qualify as "involvement."

Appendix 1: Real Volume and Speed Operating Characteristics on California SR-91 Express Lanes.





Appendix 2: Traffic Volume-to-Capacity Rations Calculated by Dr. P.D. Prevedouros

	Existing Conditions (2003)					2030 Facility Capacity	2030 No Build Alternative			2030 Managed Lane Alternative: Two-direction Option			2030 Managed Lane Alternative: Reversible Option					CORRECTED Reversible Option (2 lanes)					R20 option		CORRECTED Reversible Option (3 lanes)			
	Facility Capacity		Observed Volume	Volume/ Capacity Ratio	Level of Service		Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	DIFF	PB lanes	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	correct lanes	Volume/ Capacity Ratio	Level of Service		Forecast Volume (vph)	Volume/ Capacity Ratio	Forecast Volume (vph)	correct lanes	Volume/ Capacity Ratio	Level of Service
SCREENLINE / FACILITY	(vph)	PB lanes	(vph)			(vph)				(vph)			(vph)					(vph)					(vph)		(vph)			
Kalauao Stream Koko Head bound																												
H-1 Fwy	9500	5	10960	1.15	F	9500	18049	1.90	F	18327	1.93	F	18419	370	5	1.94	F	16695	5			1.76 10% better than PB	17209	1.81	14225	5	1.50	
H-1 Fwy (HOV)1	1900	1	1600	0.84	D	1900	3014	1.59	F	2882	1.52	F	2769	-245	1	1.46	F	1828	1			0.96 34% better than PB	2740	1.44	1828	1	0.96	
H-1 Fwy (Zipper) 1	1900	1	1700	0.89	D	1900	2444	1.29	F	1677	0.88	D	NA	0	0	NA	NA	1613	1			0.85 PB mysteriously deleted zipp	2241	1.18	1613	1	0.85	
Moanalua Rd	1700		1650	0.97	E	1700	1018	0.60	B	918	0.54	A	966	-52		0.57	A	966				0.57 ~Same as PB	853	0.50	966		0.57	
Kamehameha Hwy	3450		2960	0.86	D	3450	3498	1.01	F	3226	0.94	E	3121	-377		0.90	E	3121				0.90 ~Same as PB	3059	0.89	3121		0.90	
Managed Lane	4400	0	NA	NA	NA	2200	NA	NA	NA	1769	0.80	D	3457	0	2	0.79	C2	3800	2			0.86 ~Same as PB	NA	NA	6270	3	0.86	
Total General Purpose Traffic	14650		15570	1.06	F	14650	22565	1.54	F	22471	1.39	F	22507			1.39	F	20782					21120	1.31	18312			
Total HOV Traffic	3800		3300	0.87	D	3800	5458	1.44	F	4559	1.20	F	2769			1.46	F	3441					4980	1.31	3441			
Total Managed Lane Traffic	NA	7	NA	NA	NA	2200	NA	NA	NA	1769	0.80	D	3457		8	0.79	C2	3800	9				NA	NA	6270	10		
		correct					28023			28799			28732		wrong, should be 9			28023	correct						28023	correct		

Identical totals -- although the reversible ML will carry many more people and a smaller number of vehicles (lower traffic volume)

	Existing Conditions (2003)					2030 Facility Capacity	2030 No Build Alternative			2030 Managed Lane Alternative: Two-direction Option			2030 Managed Lane Alternative: Reversible Option					CORRECTED Reversible Option (2 lanes)					R20 option		CORRECTED Reversible Option (3 lanes)			
	Facility Capacity		Observed Volume	Volume/ Capacity Ratio	Level of Service		Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	DIFF	PB lanes	Volume/ Capacity Ratio	Level of Service	Forecast Volume (vph)	correct lanes	Volume/ Capacity Ratio	Level of Service		Forecast Volume (vph)	Volume/ Capacity Ratio	Forecast Volume (vph)	correct lanes	Volume/ Capacity Ratio	Level of Service
SCREENLINE / FACILITY	(vph)	PB lanes	(vph)			(vph)				(vph)			(vph)					(vph)					(vph)		(vph)			
Kalauao Stream Koko Head bound																												
H-1 Fwy	9500	5	10960	1.15	F	9500	18049	1.90	F	18327	1.93	F	18419	370	5	1.94	F	14772	5			1.55 10% better than PB	17209	1.81	12302	5	1.29	
H-1 Fwy (HOV)1	1900	1	1600	0.84	D	1900	3014	1.59	F	2882	1.52	F	2769	-245	1	1.46	F	1828	1			0.96 34% better than PB	2740	1.44	1828	1	0.96	
H-1 Fwy (Zipper) 1	1900	1	1700	0.89	D	1900	2444	1.29	F	1677	0.88	D	NA	0	0	NA	NA	1613	1			0.85 PB mysteriously deleted zipp	2241	1.18	1613	1	0.85	
Moanalua Rd	1700		1650	0.97	E	1700	1018	0.60	B	918	0.54	A	966	-52		0.57	A	966				0.57 ~Same as PB	853	0.50	966		0.57	
Kamehameha Hwy	3450		2960	0.86	D	3450	3498	1.01	F	3226	0.94	E	3121	-377		0.90	E	3121				0.90 ~Same as PB	3059	0.89	3121		0.90	
Managed Lane	4400	0	NA	NA	NA	2200	NA	NA	NA	1769	0.80	D	3457	0	2	0.79	C2	3800	2			0.86 ~Same as PB	NA	NA	6270	3	0.86	
Total General Purpose Traffic	14650		15570	1.06	F	14650	22565	1.54	F	22471	1.39	F	22507			1.39	F	16859					21120	1.31	16389			
Total HOV Traffic	3800		3300	0.87	D	3800	5458	1.44	F	4559	1.20	F	2769			1.46	F	3441					4980	1.31	3441			
Total Managed Lane Traffic	NA	7	NA	NA	NA	2200	NA	NA	NA	1769	0.80	D	3457		8	0.79	C2	3800	9				NA	NA	6270	10		
		correct					28023			28799			28732		wrong, should be 9			26100	correct				**26100.00**		26100	correct		